



URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

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Rod Price,
Vice President/General Manager
Demarco Construction
195 Menten Place, Unit 103
Ottawa, ON
K2H 9C1

**RE: TREE PROTECTION AND PRESERVATION REPORT FOR CITY MAPLE AT 1364-1370
STITTSVILLE MAIN STREET**

Dear Rod,

As per your request, this letter report details an assessment of a mature red maple (*Acer rubrum*) located within City of Ottawa right-of-way in front of the above noted property slated for development. A four-storey mixed-use building with surface parking is being proposed for the subject property. The proposed entrance to the building will be to the northwest of the tree – roughly in line with an existing driveway which led to the previous dwelling on site.

The purpose of this assessment is to determine the current health of this tree and recommend detailed protection and preservation measures in light of the proposed construction.

A visual inspection of the maple conducted in July 2022 found the following attributes:

- 1) The tree's diameter measured at 1.3m from grade is 85.4cm.
- 2) The tree's vigour is good – as shown by its annual growth increment and good closure of past pruning wounds.
- 3) Rooting is restricted to the northeast by a concrete sidewalk less than 2m away. It is partially restricted to the northwest by the aforementioned compacted stone driveway and is completely unrestricted in all other directions (see Pictures 1 and 2 on page 4).
- 4) Root flares at the tree's root collar are not visible indicating the grade was likely raised around the tree in the past.
- 5) The tree's crown is comprised of a central stem with competing and suppressed laterals arising at 3.5m from grade. The crown is broad with a moderately good density of foliage. At the time of inspection the crown showed less than ten percent dieback.
- 6) The surrounding soil surface, excluding the concrete and stone surfaces previously noted, is fully turf covered.



The revised landscape plan prepared by James B. Lennox and Associates (drawing L.1 dated July 2022) indicates excavation for the front patio will encroach only slightly within the tree's critical rooting zone (CRZ). Under the City of Ottawa's Tree Protection By-law No. 2020-340, a critical rooting zone is considered to be ten times tree diameter. At this distance the vast majority of the maple's current CRZ will remain intact. If this landscape plan is adopted it is my opinion the maple will not be adversely impacted by root loss.

A number of measures are recommended to promote the survival of this tree during and following construction:

- 1) Tree Protection Barrier: Following the City of Ottawa's tree protection barrier detail included on plan L.1, wooden hoarding supported by t-bars should be installed at a distance of at least 8.5m from the tree (where possible). This barrier should be a minimum of 1.2m in height and all of the supports and bracing should be installed in such a way as to minimize root damage. Since the desired effect is to prevent construction traffic and storage/stockpiling of materials within the CRZ, the barrier should be kept in place until all construction has been completed. Lastly, it should also have signage attached to it indicating its presence as a tree protection barrier.
- 2) Surface Treatment: Where construction traffic must pass outside the protection barrier a protective root buffer is required. This buffer will consist of woodchips spread to a thickness of 10 cm covered by a layer of granular 'A' gravel deep enough to stabilize 2 cm thick ($\frac{3}{4}$ inch) plywood or rubber ground mats. This will help prevent the compaction of soil surrounding the tree's fine feeding roots.
- 3) Excavation/Exposed Roots: Since some excavation within the CRZ is necessary a trench should first be dug carefully using hydro excavation (*i.e.* via a hydrovac truck). After the trench is established traditional equipment can be used to complete the work. If roots are encountered while trenching they should be preserved intact where possible. If they must be severed they should be cleanly cut and the cut ends sealed with a paste containing bees wax. The cuts should be made with either pruning shears or saw wiped with alcohol before each cut. This will ensure clean disease-free cuts of the roots, thus facilitating healing.
- 4) Covering/Watering/Fertilization: If any tree roots are exposed during construction they should be immediately reburied with soil or temporarily covered with burlap, filter cloth or woodchips and kept moist (*i.e.* watering with a soft-spray nozzle at least three times a week). A covering of plastic should be used in order to retain moisture during an extended period when watering may not be possible (*i.e.* over weekends). Fertilizing the tree with a liquid, deep-root, slow-release fertilizer is recommended only after the completion of all construction. Since the tree could suffer root-related stress, a fertilizer with a high-phosphorus formulation should be used. This should be repeated every other year.

As detailed in drawing L.1, the future landscape surrounding the tree will include a planting bed of dogwoods. Prior to planting the shrubs a slight addition of topsoil is recommended (no more than 5cm spread by hand or blower truck). This should then be covered by composted woodchip mulch (no more than 10cm deep without landscape fabric beneath). Lastly, a drip irrigation system will be installed (without any related excavation). This design will help improve the tree's physiological health, and help it overcome any construction-related stresses.

Over the next several years the maple should be monitored and any dieback or dead branches be pruned from the crown.

I trust this report satisfies your requirements. Please do not hesitate to contact me with any questions or comments you may have.

This report is subject to the attached Limitations to which the reader's attention is directed.

Yours,



Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)
ISA Certified Arborist #ON-0496A and TRAQualified
Consulting Urban Forester



Picture 1. Looking southward - lower bole and existing growing environment of mature red maple located within City of Ottawa ROW adjacent to 1364-1370 Stittsville Main Street (proposed building will be located to the right)



Picture 2. Looking towards northwest - lower bole and existing growing environment of mature red maple located within City of Ottawa ROW adjacent to 1364-1370 Stittsville Main Street (proposed building will be located to the left of tree)



Picture 3. Crown and existing growing environment of mature red maple located within City of Ottawa ROW adjacent to 1364-1370 Stittsville Main Street (all pictures taken July 2022).

LIMITATIONS OF TREE ASSESSMENTS & LIABILITY

GENERAL

It is the policy of *IFS Associates Inc.* to attach the following clause regarding limitations. We do this to ensure that our clients are clearly aware of what is technically and professionally realistic in assessing trees for retention.

This report was carried out by *IFS Associates Inc.* at the request of the client named above. The information, interpretation and analysis expressed in this report are for the sole benefit and exclusive use of the client. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the client to whom it is addressed. Unless otherwise required by law, neither all or any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through public relations, news or other media, without the prior expressly written consent of the author, and especially as to value conclusions, identity of the author, or any reference to any professional society or institute or to any initialed designation conferred upon the author as stated in his qualifications.

This report and any values expressed herein represent the opinion of the author; his fee is in no way contingent upon the reporting of a specified value, a stipulated result, nor upon any finding to be reported.

Details obtained from photographs, sketches, *etc.*, are intended as visual aids and are not to scale. They should not be construed as engineering reports or surveys.

Although every effort has been made to ensure that this assessment is reasonably accurate, the tree(s) should be reassessed at least annually.

The assessment presented in this report is valid at the time of the inspection only.

The loss or alteration of any part of this report invalidates the entire report.

LIMITATIONS

The information contained in this report covers only the tree(s) in question and no others. It reflects the condition of the assessed tree(s) at the time of inspection and was limited to a visual examination of the accessible portions only. *IFS Associates Inc.* has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the forestry and arboricultural professions, subject to the time limits and physical constraints applicable to this report. The assessment of the tree(s) presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground portions of each tree for structural defects, scars, cracks, cavities, external indications of decay such as fungal fruiting bodies, evidence of insect infestations, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of people and property.

Except where specifically noted in the report, the tree(s) examined were not dissected, cored, probed or climbed to gain further evidence of their structural condition. Also, unless otherwise noted, no detailed root collar examinations involving excavation were undertaken.

While reasonable efforts have been made to ensure that the tree(s) recommended for retention are healthy, no warranty or guarantee, expressed or implied, are offered that these trees, or any parts of them, will remain standing. This includes other trees on or off the property not

examined as part of this assignment. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or groups of trees or their component parts in all circumstances, especially when within construction zones. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure in the event of root loss due to excavation and other construction-related impacts. This risk can only be eliminated through full tree removal.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions, or seasonal variations in the weather. It is a condition of this report that IFS Associates Inc. be notified of any changes in tree condition and be provided an opportunity to review or revise the recommendations within this report.

Recognition of changes to a tree's condition requires expertise and extensive experience. It is recommended that IFS Associates Inc. be employed to re-inspect the tree(s) with sufficient frequency to detect if conditions have changed significantly.

ASSUMPTIONS

Statements made to IFS Associates Inc. in regards to the condition, history and location of the tree(s) are assumed to be correct. Unless indicated otherwise, all trees under investigation in this report are assumed to be on the client's property. A survey prepared by a Licensed Ontario Land Surveyor showing all relevant trees, both on and adjacent to the subject property, will be provided prior to the start of field work. The procurement of said survey, and the costs associated with it, are the responsibility of the client, not IFS Associates Inc.

LIABILITY

Without limiting the foregoing, no liability is assumed by *IFS Associates Inc.* for:

- 1) any legal description provided with respect to the property;
- 2) issues of title and/or ownership with respect to the property;
- 3) the accuracy of the property line locations or boundaries with respect to the property;
- 4) the accuracy of any other information provided by the client or third parties;
- 5) any consequential loss, injury or damages suffered by the client or any third parties, including but not limited to replacement costs, loss of use, earnings and business interruption; and,
- 6) the unauthorized distribution of the report.

Further, under no circumstances may any claims be initiated or commenced by the client against *IFS Associates Inc.* or any of its directors, officers, employees, contractors, agents or assessors, in contract or in tort, more than 12 months after the date of this report.

ONGOING SERVICES

IFS Associates Inc. accepts no responsibility for the implementation of any or all parts of the report, unless specifically requested to supervise the implementation or examine the results of activities recommended herein. In the event that examination or supervision is requested, that request shall be made in writing and the details, including fees, agreed to in advance.